MEMORANDUM

To:

Mr. Jim Buchert, Versar, Inc.

From:

Laura Casey, OPPT/NPCD/FOB

RE:

Technical Direction to Work Assignment 2-1

Subject:

Clariant Corporation, Coventry, Rhode Island

EPA-Region 1 has received Versar's December 12, 2006 correspondence (via e-mail) regarding the Addendum II to Report: Exposure and Screening Level Risk Assessment for Carpet Fiber and Food Wrap Scenarios Associated with Pigment Red 144/214 (April 11, 2005 Revision), dated November 14, 2006 and associated supporting documents for the Clariant Red Pigment Project.

Based on EPA's review of Versar's findings, it appears that Clariant is addressed all comments and that no further work is required on this project. Accordingly, Region I is requesting that Versar provide a short, executive summary regarding the following:

 Recommendations and/or opinions regarding the conservatism of the assessment (data assumptions) and reasonable "worst-case" scenario regarding product uses

Due Date: Please turn the review of this document around by December 20, 2006. If there are any questions regarding this due date, please contact me at 202-566-1982.

Technical questions relating to this project may be addressed directly to Kim Tisa in Region 1 at 617-918-1527 or by e-mail at tisa.kimberly@epa.gov.

VersarINC

MEMORANDUM

TO:

Laura Casey

cc:

11.1126.3009.001

FROM:

Diane Sinkowski/Jim Buchert/Mike Koontz

DATE:

December 19, 2006

SUBJECT:

Review of Clariant/BBL "Addendum II to Report: Exposure and Screening-Level Risk Assessment for Carpet Fiber and Food Wrap Scenarios Associated with Pigment Red 114/214 (April 11, 2005 Revision), Step-By-Step Calculations

Guide (November 14, 2006)"

Versar has reviewed the updated calculations associated with the carpet exposure scenario provided in the November 14th addendum. The methodology for estimating exposure to PCBs in carpeting and for determining the concentrations of PCBs in carpeting associated with acceptable risk levels (i.e., cancer risk of 1x10⁻⁶ and hazard index of 1.0) presented in this addendum appears to be sound. The variables selected include those representing a worst-case exposure scenario, including an oral bioavailability factor of 1.00, a retention factor of 0.0001, and a room air exchange rate of 0.35 exchanges per hour.

The results for this analysis are presented in Table 4, "October 2006 Revised Risk-Based Concentrations (mg/kg) of tPCB in Carpet Fiber for Child Non-Cancer and Cancer Risk Scenarios, Assuming Complete Volatilization from Carpet Surface and Finite PCB Mass," of Addendum II. Under the most conservative or worst-case scenario shown in Table 4 (an oral bioavailability factor of 1.00 and a retention factor of 0.0001), the maximum Clariant-estimated concentration of PCBs in carpet fiber of 14.1 mg/kg would correspond to a hazard index of greater than 1.0¹. (The maximum concentrations associated with a cancer risk of 1x10⁻⁶ for the most conservative assumptions are higher than the Clariant-estimated concentration, and, therefore, indicate that the cancer risk from exposure to the carpeting would be expected to be low.) Although currently there are little data available regarding the oral bioavailability of PCBs, it is not likely to be as high as 1.0. As part of a public health assessment performed in 2004, the Agency for Toxic Substances and Disease Registry (ATSDR) estimated that the range of bioavailability of PCBs in soil is 40 to 65 percent.

(http://www.atsdr.cdc.gov/HAC/PHA/saipan083104-CM/saipan083104-CM-p7.html). Assuming that the oral bioavailability of PCBs in carpet fiber is within a similar range as that in soil, the risk associated with the PCBs in carpet fiber is expected to be minimal. Note that for oral bioavailability factors of less than approximately 55 percent (0.55) and a retention factor of 0.0001, under actual conditions, the hazard indices associated with a carpet fiber concentration of 14.1 mg/kg should be less than 1.0.

¹ The results for a retention factor of 0.001 are similar to those for 0.0001.

VersarM

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The results for a retention factor of 0.001 are similar to those for 0.0001.



Laura Casey/DC/USEPA/US 12/12/2006 02:14 PM

To Kimberly Tisa/R1/USEPA/US@EPA

CC

bcc

Subject Re: Fw: Review of Clariant Addendum II dated November 14, 2006 1

Shouldn't be a problem. I'll set something up w/ Versar. Any particular day or time good for you?

Laura Kimberly Tisa/R1/USEPA/US



Kimberly Tisa/R1/USEPA/US

12/12/2006 02:11 PM

To Laura Casey/DC/USEPA/US@EPA

CC

Subject Re: Fw: Review of Clariant Addendum II dated November 14, 2006

Thanks, Laura. If possible, I would like to speak with Didi and/or Jim regarding the findings. Basically, I need to confirm that we've considered the most conservative assumptions and that other uses would pose less exposure risk than what we've considered. If so, I'll need to do a file memo, with all findings so that enforcement can proceed with its work on this.

Do you think this is doable in the next week or so under the Versar SOW?

Kimberly N. Tisa (CPT) U.S. Environmental Protection Agency 1 Congress Street, Suite 1100 Boston, MA 02114

617.918.1527 (phone) 617.918.0527 (fax) Laura Casey/DC/USEPA/US



Laura Casey/DC/USEPA/US

12/12/2006 11:46 AM

To Kimberly Tisa/R1/USEPA/US@EPA

cc

Subject Fw: Review of Clariant Addendum II dated November 14, 2006

FYE

---- Forwarded by Laura Casey/DC/USEPA/US on 12/12/2006 11:46 AM -----



James Buchert <BUCHEJAM@Versar.com> 12/12/2006 11:09 AM

To Laura Casey/DC/USEPA/US@EPA

cc Diane Sinkowski <DSinkowski@Versar.com>

Subject Review of Clariant Addendum II dated November 14, 2006



Laura,

This note is in regard to the latest submission from Clariant (Addendum II to Report: Exposure and Screening-level Risk Assessment for Carpet Fiber and Food Wrap Scenarios Associated with Pigment Red 144/214; April 11, 2005 Revision; Step-by-step Calculations Guide - Prepared by BBL Sciences, November 14, 2006)

We (Me, Didi, and Mike) find this latest submission to be acceptable. The derivation of appropriate EF/ED/AT values, based on time for all mass to volatilize and then disappear due to air exchange, seems reasonable. We have also checked the calculations and can duplicate the values presented in Table 4 (acceptable concentrations in carpet fiber).

Please feel free to contact us if you have any questions in regard to this matter.



Laura Casey/DC/USEPA/US 12/12/2006 04:31 PM

To Kimberly Tisa/R1/USEPA/US@EPA, buchejam@versar.com, DSinkowski@versar.com cc

bcc

DC

Subject Clariant Call - Thursday, Dec. 14th

Good Afternoon

We will be getting together on the phone, Thursday, Dec. 14th at 10 am to discuss the Clariant Project.

Call in Number - 866-299-3188

Conference Code - 2025661982

Jim - Please pass this info on to Mike Koontz.

Thanks

Laura Casey



Laura Casey/DC/USEPA/US 12/12/2006 11:46 AM

To Kimberly Tisa/R1/USEPA/US@EPA

C

bcc

Subject Fw: Review of Clariant Addendum II dated November 14, 2006

History:

This message has been replied to.

ĘV

---- Forwarded by Laura Casey/DC/USEPA/US on 12/12/2006 11:46 AM ----



James Buchert <BUCHEJAM@Versar.com> 12/12/2006 11:09 AM

To Laura Casey/DC/USEPA/US@EPA

cc. Diane Sinkowski < DSinkowski@Versar.com>

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